

# THROW KEYWORD

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- It is basically used for custom exception / user defined exception.
- SYNTAX : `throw new ExceptionClass();` // we can pass String inside this method.

```
package dummy;
public class FinallyWithReturn {
    public static void main(String[] args) {
        throw new ArithmeticException();
    }
}
```

In this case programmer pass object to JVM

Que. What is the need of throwing an exception ?

Understand through real world example :

- Project -> Voting
- If your age is less than 18 then you can't vote.

So in this case I will create a new exception class in which I provide that => (you can't vote)  
If I will take input from user and if age is less than 18 then I will throw this exception (you can't vote).

- Important point:
- We have to use throw keyword mostly for custom exception not for predefined exceptions.

EX:

```
package dummy;

class YoungerAgeException extends RuntimeException {

    public YoungerAgeException(String msg) {
        super(msg); // this is available for default exception handler
    }
}

public class AgeException {

    public static void main(String[] args) {
        int age = 16;

        if (age < 18) {
            throw new YoungerAgeException("you can vote");
            // we cannot write any statement after throw statement :
        }
    }
}
```

- One thing to remember that with the help of throw keyword we can create the exception object manually, but it can't handle the exception yet.
- Some important points:

**1. keywords working :**

**try :** In try block we write statements that can throw exception i.e. it contains risky code

**catch :** It contains exception handling code i.e. alternative way for exception

**finally :** It contains clean up code i.e. closing the resources

**throw :** It creates exception object manually (by programmer) and handover to JVM

2. We can throw either checked or unchecked exception but throw is best for customized exception

3. We can only throw class that comes in throwable child class

4. We cannot write any statement after throw, otherwise it will provide unreachable statement error.